FIG. 1

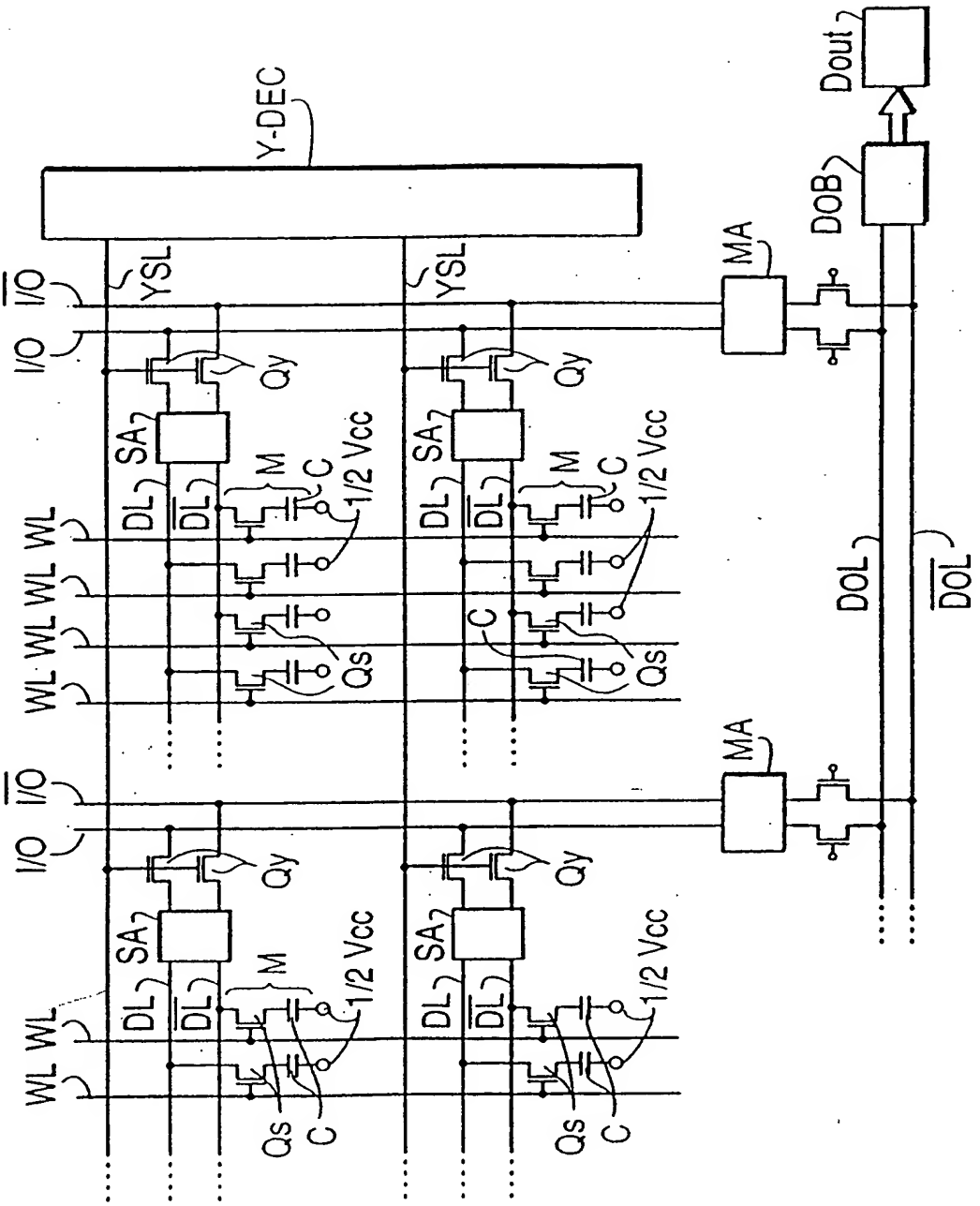


FIG. 2

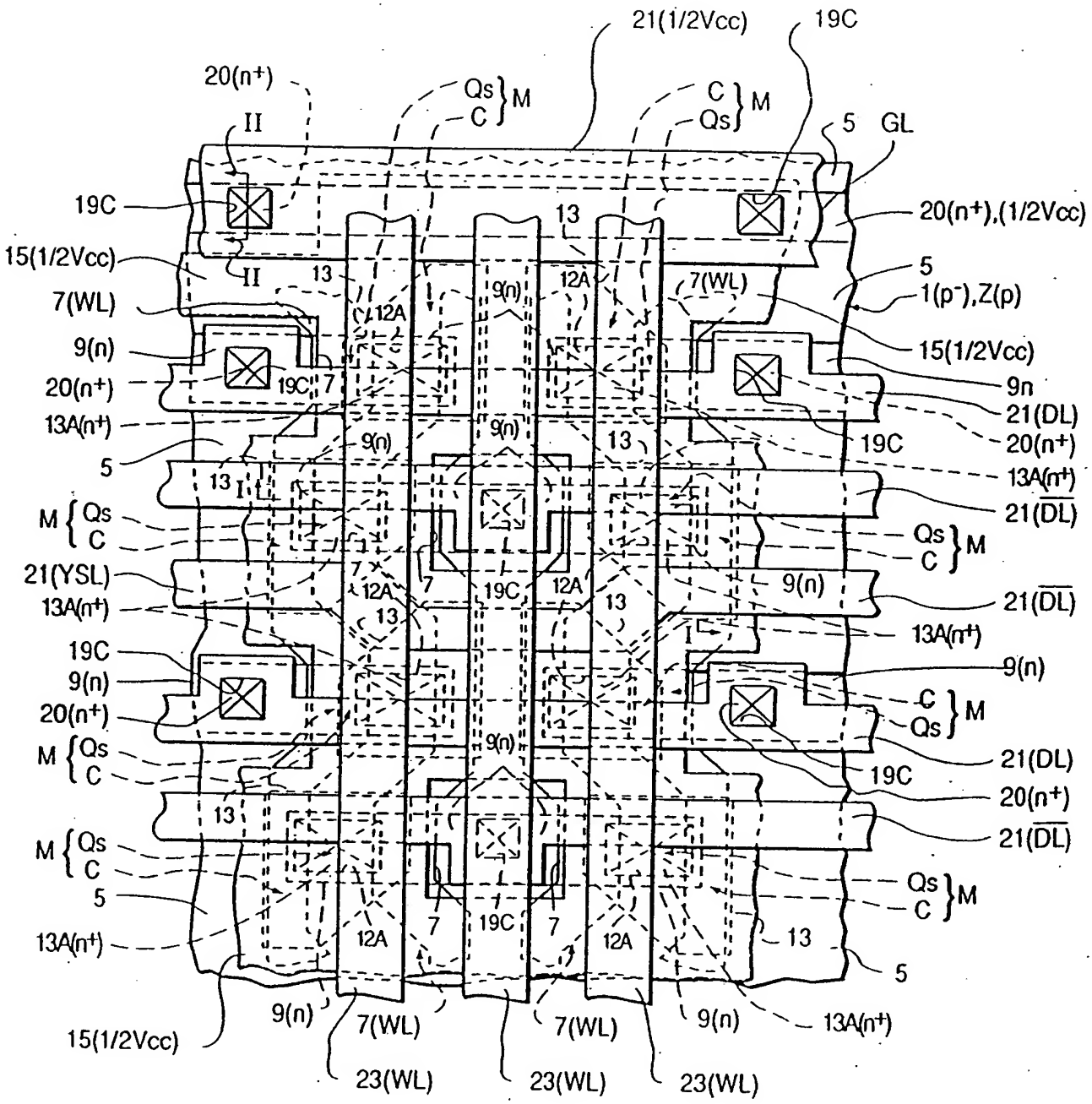

21(1/2Vcc)
19C
20(n+)
Qs
C
M
II
5
GL
19C
13
20(n+),(1/2Vcc)
15(1/2Vcc)
7(WL)
12A
9(n)
1(p-),Z(p)
15(1/2Vcc)
9n
21(DL)
20(n+)
13A(n+)
21(DL)
21(YSL)
7
19C
23(WL)

FIG. 3

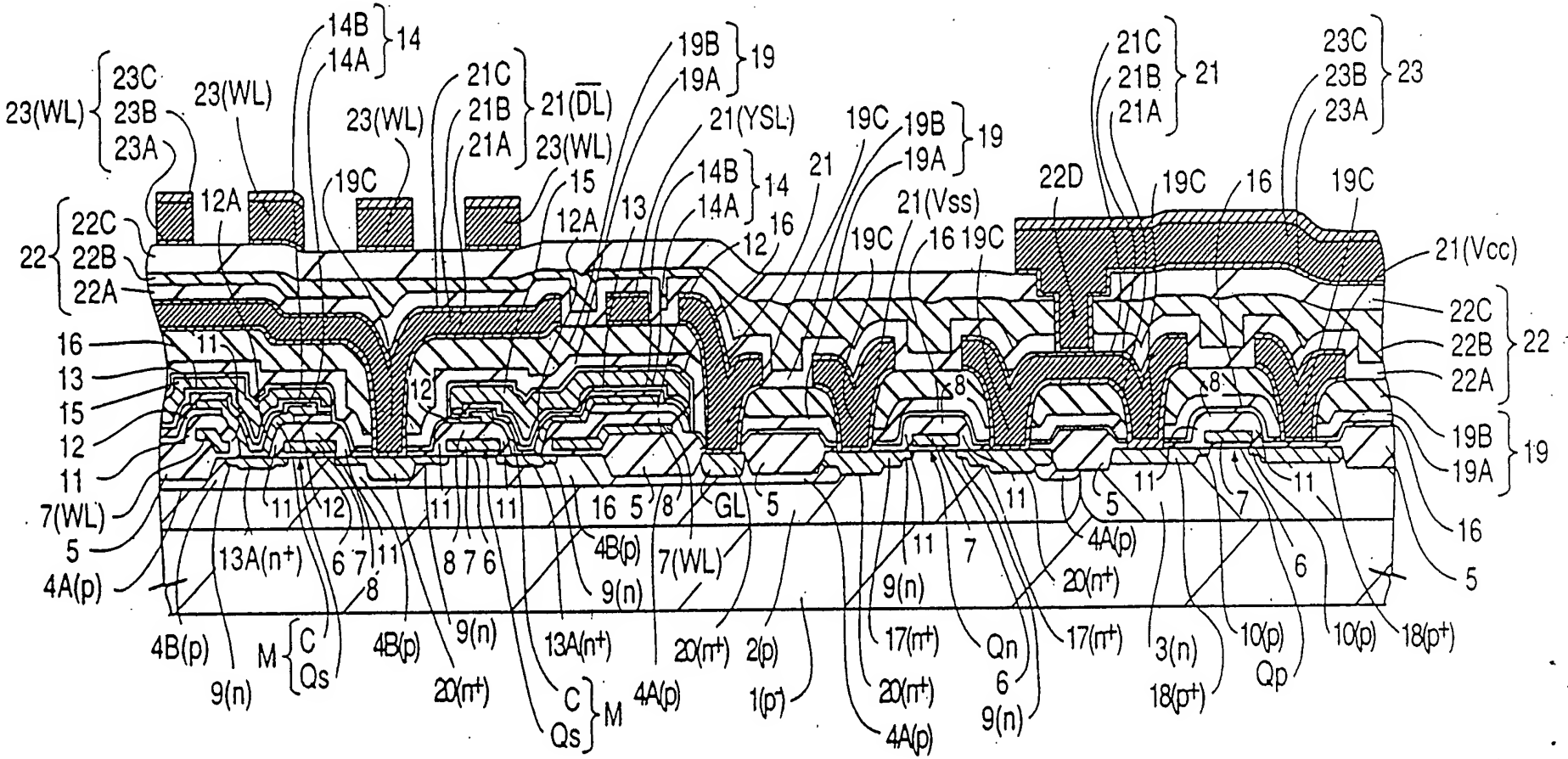

23(WL)
23C
23B
23A
14B
14A
14
21C
21B
21A
21(DL)
19B
19A
19
21(YSL)
21(Vss)
21(Vcc)
22D
22C
22B
22A
22
12A
19C
15
13
16
12
11
7(WL)
5
4A(p)
13A(n+)
6
7
8
4B(p)
9(n)
GL
2(p)
1(p+)
17(n+)
20(n+)
Qn
6
3(n)
18(p+)
10(p)
Qp
C
Qs
M

FIG. 4

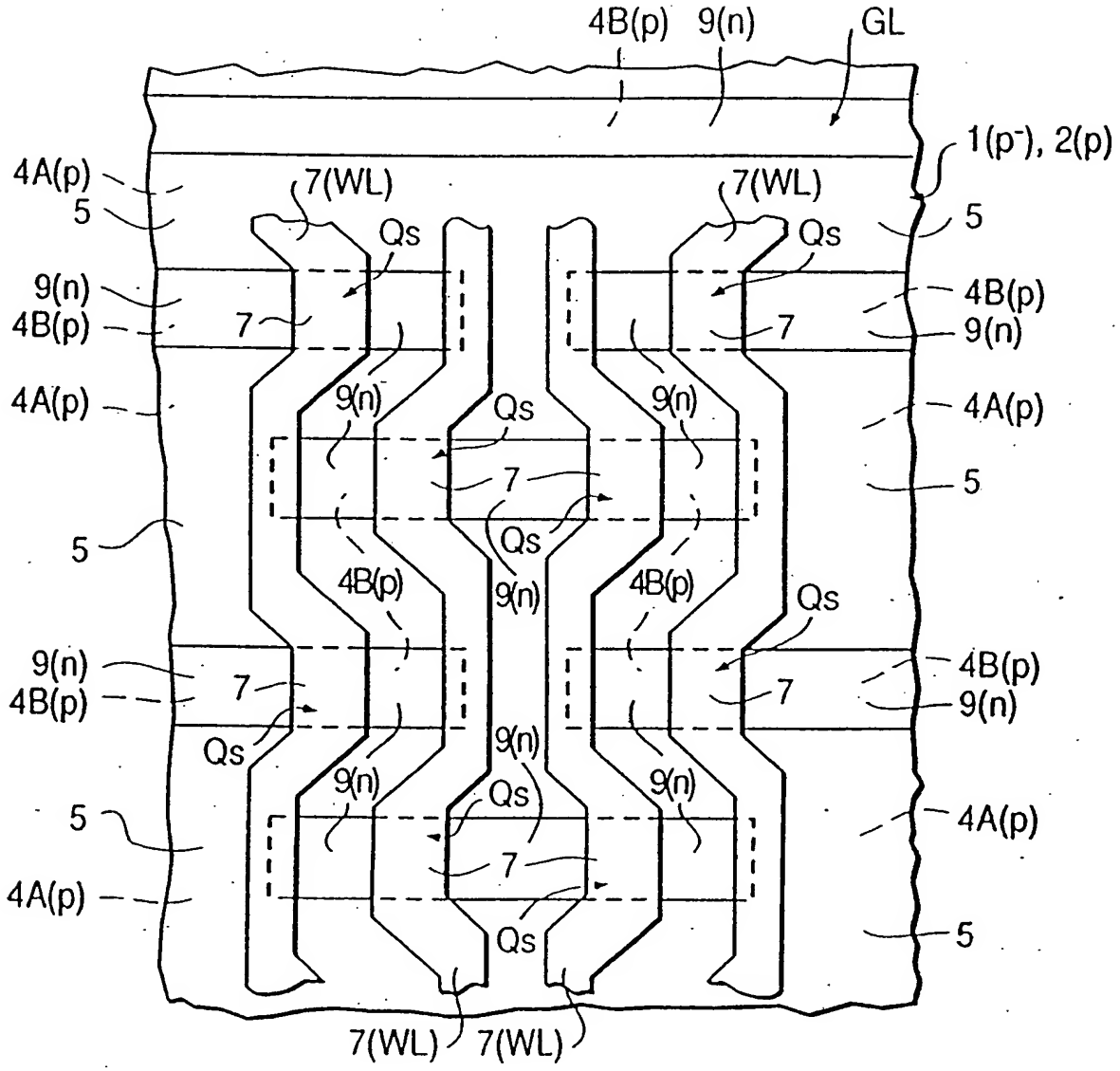

4B(p)
9(n)
GL
1(p⁻), 2(p)
4A(p)
5
7(WL)
Qs
9(n)
4B(p)
7
4A(p)
5
9(n)
4B(p)
7
Qs
5
4B(p)
9(n)
4A(p)
5
7(WL)
7(WL)

FIG. 5

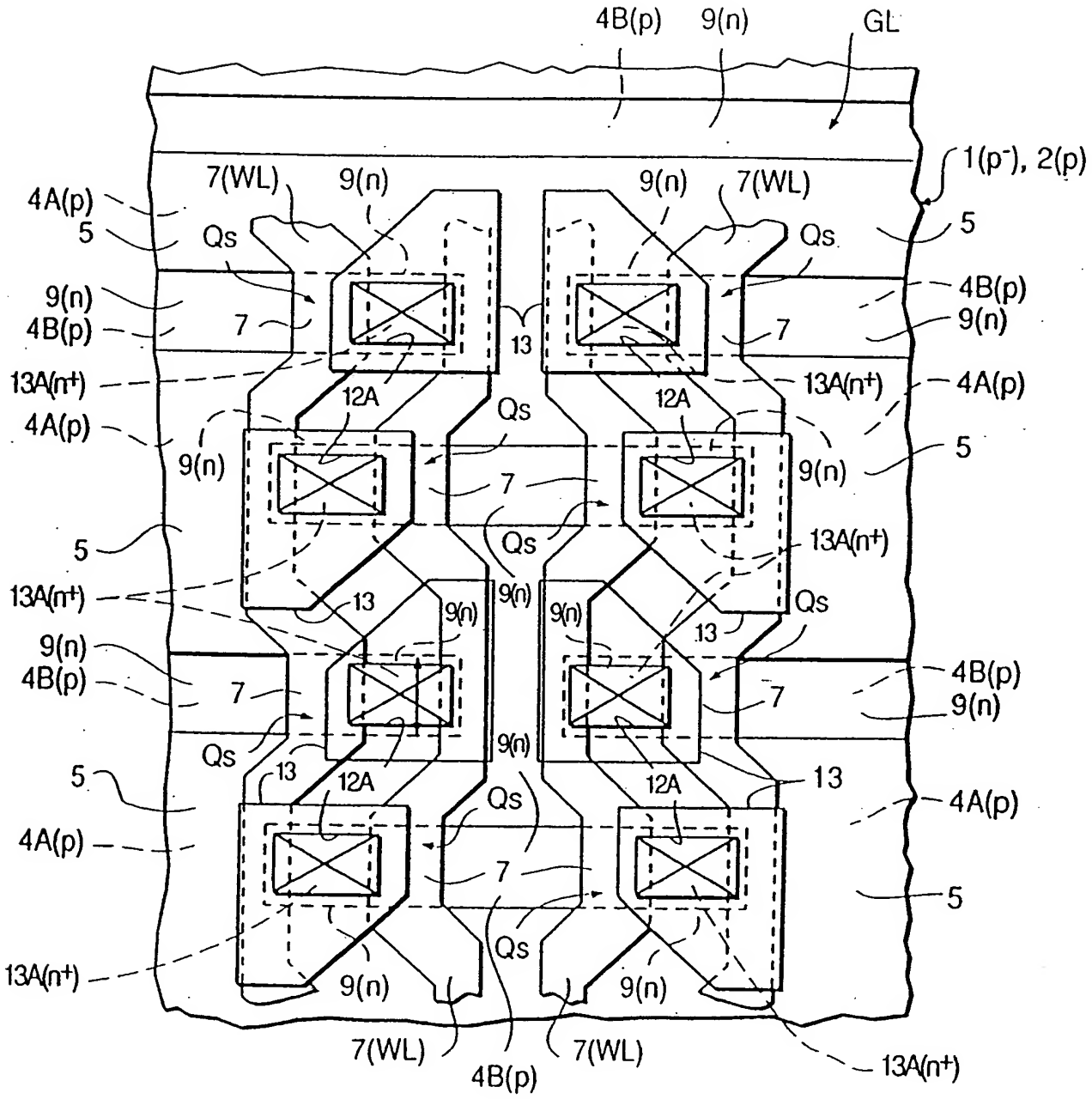

4B(p)
9(n)
GL
1(p⁻), 2(p)
7(WL)
9(n)
9(n)
7(WL)
4A(p)
5
Qs
Qs
5
9(n)
4B(p)
7
13
7
4B(p)
9(n)
13A(n⁺)
12A
12A
13A(n⁺)
4A(p)
4A(p)
Qs
9(n)
7
9(n)
5
5
Qs
13A(n⁺)
13A(n⁺)
13
9(n)
9(n)
9(n)
13
Qs
9(n)
4B(p)
7
7
4B(p)
9(n)
Qs
9(n)
5
13
12A
12A
13
4A(p)
Qs
4A(p)
7
5
Qs
13A(n⁺)
9(n)
9(n)
7(WL)
7(WL)
13A(n⁺)
4B(p)

FIG. 6

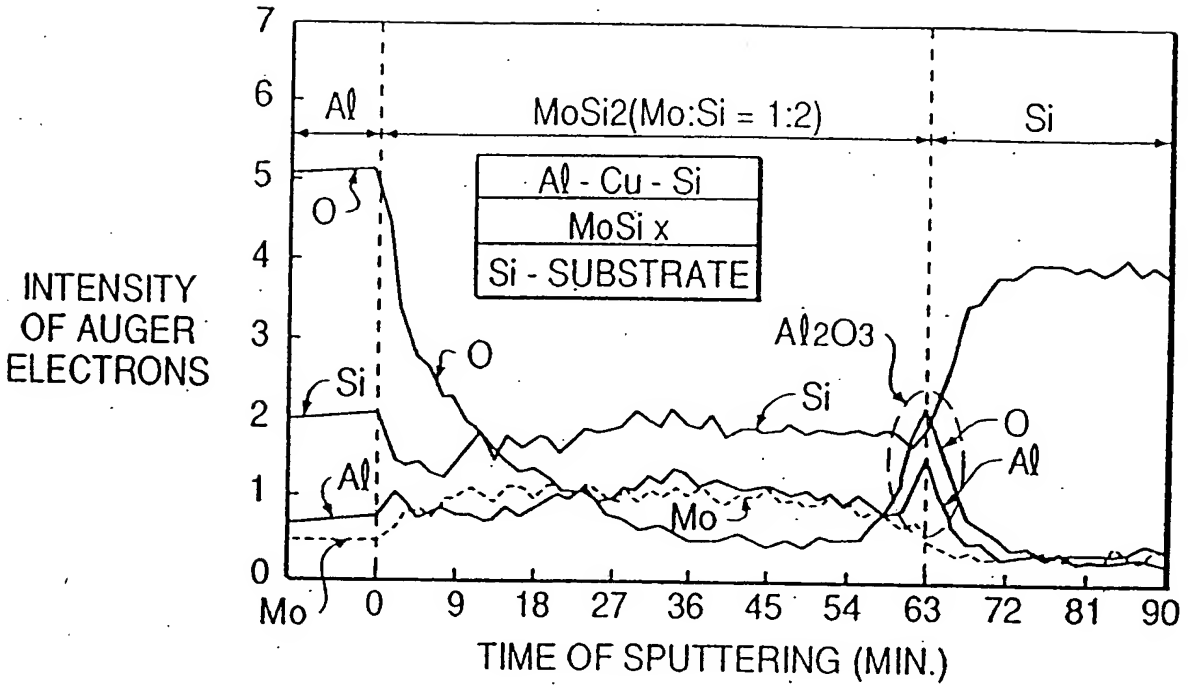

INTENSITY OF AUGER ELECTRONS
Al
MoSi2(Mo:Si = 1:2)
Si
Al - Cu - Si
MoSi x
Si - SUBSTRATE
O
Si
Al
Mo
Al2O3
TIME OF SPUTTERING (MIN.)
0
9
18
27
36
45
54
63
72
81
90

FIG. 7

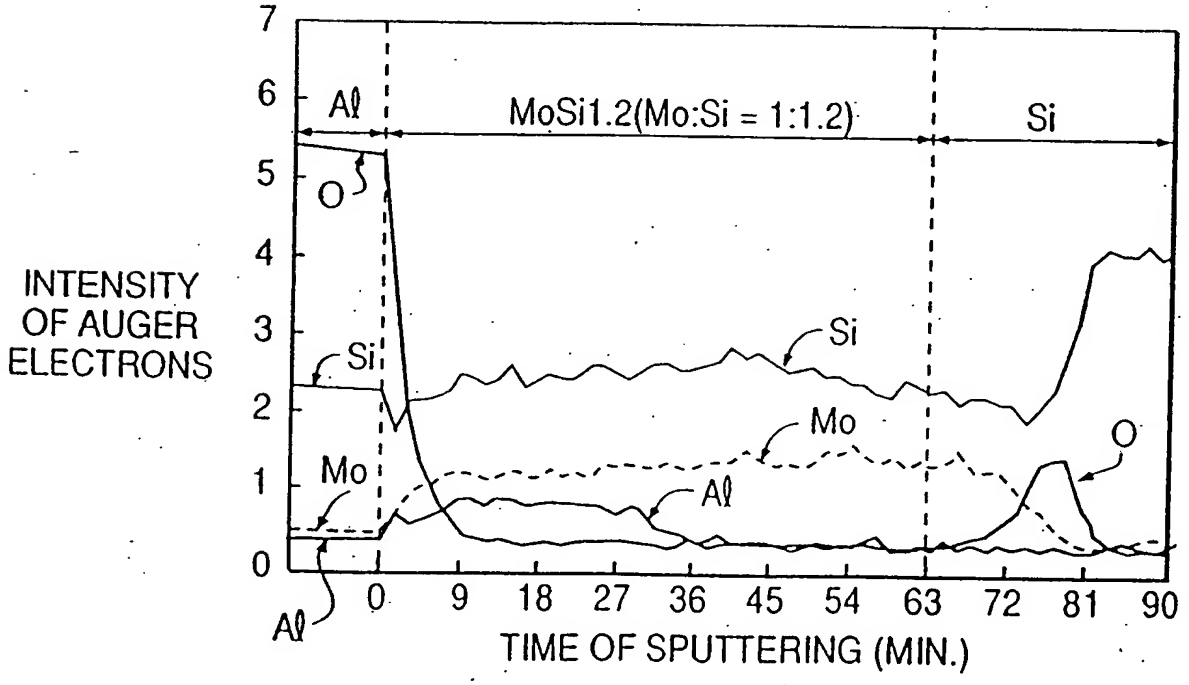

INTENSITY OF AUGER ELECTRONS
Al
MoSi1.2(Mo:Si = 1:1.2)
Si
O
Si
Mo
Al
TIME OF SPUTTERING (MIN.)
0
9
18
27
36
45
54
63
72
81
90

FIG. 8

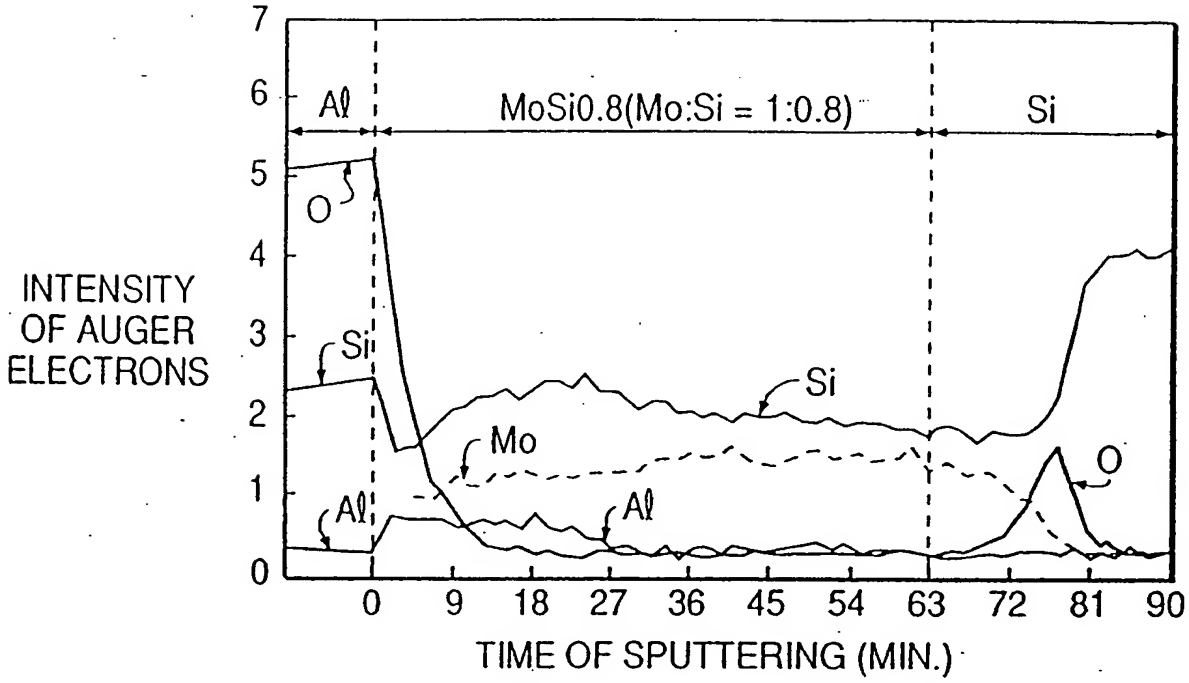

INTENSITY OF AUGER ELECTRONS
7
6
5
4
3
2
1
0
Al
MoSi0.8(Mo:Si = 1:0.8)
Si
O
Si
Si
Mo
O
Al
Al
0
9
18
27
36
45
54
63
72
81
90
TIME OF SPUTTERING (MIN.)

FIG. 27

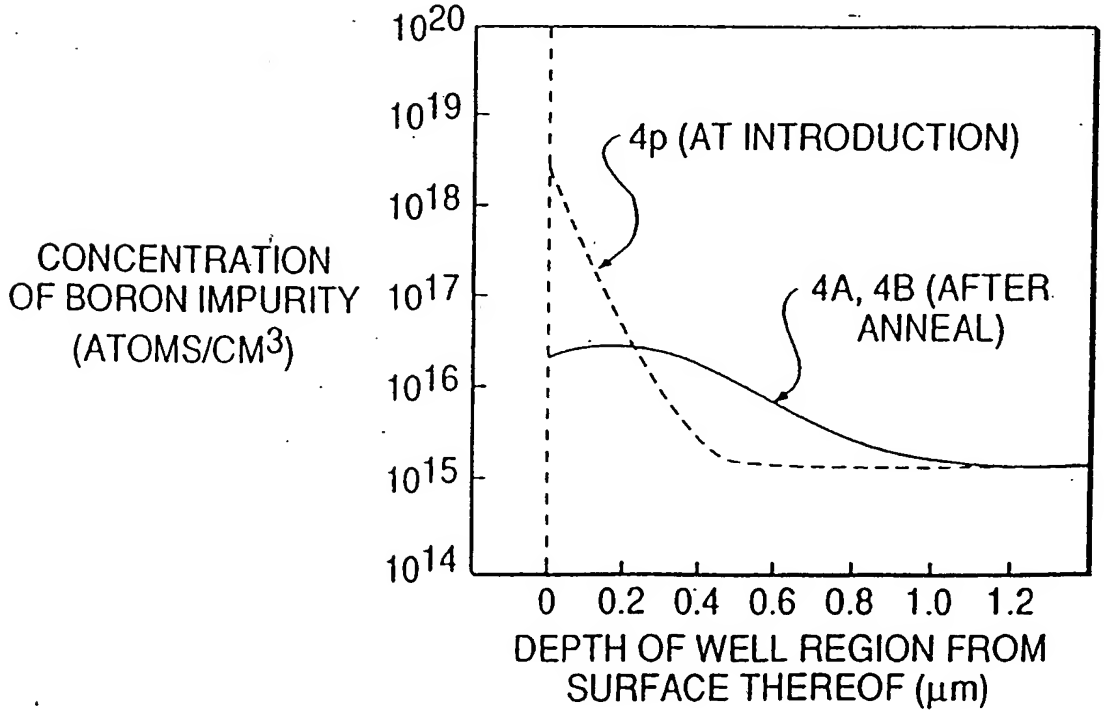

CONCENTRATION OF BORON IMPURITY (ATOMS/CM3)
10^20
10^19
10^18
10^17
10^16
10^15
10^14
4p (AT INTRODUCTION)
4A, 4B (AFTER ANNEAL)
0
0.2
0.4
0.6
0.8
1.0
1.2
DEPTH OF WELL REGION FROM SURFACE THEREOF (μm)

FIG. 9

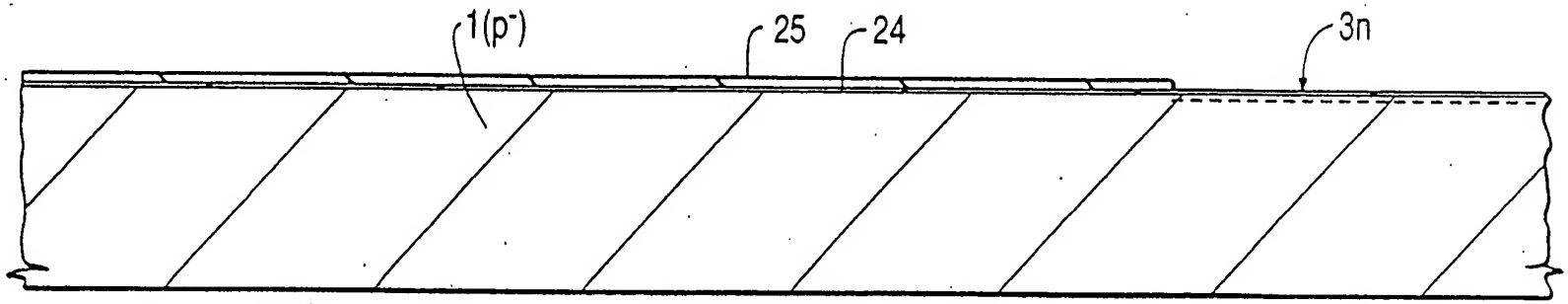


FIG. 10

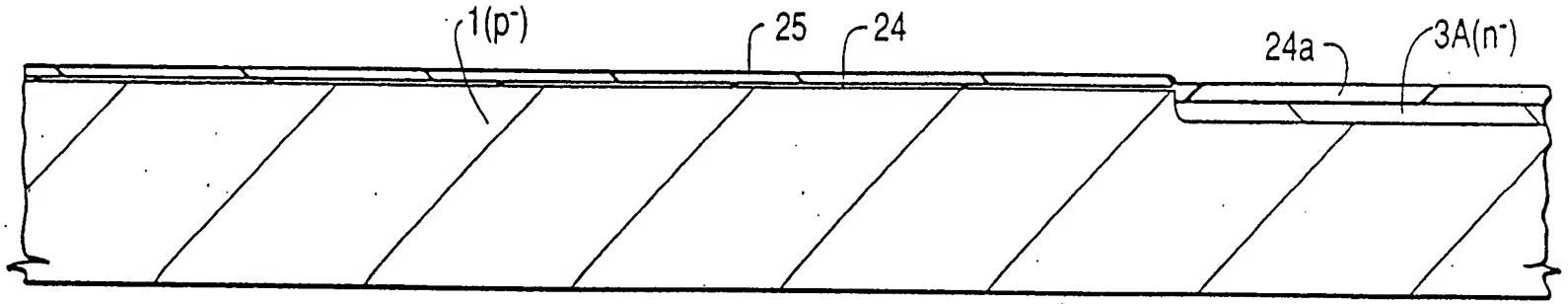


FIG. 11

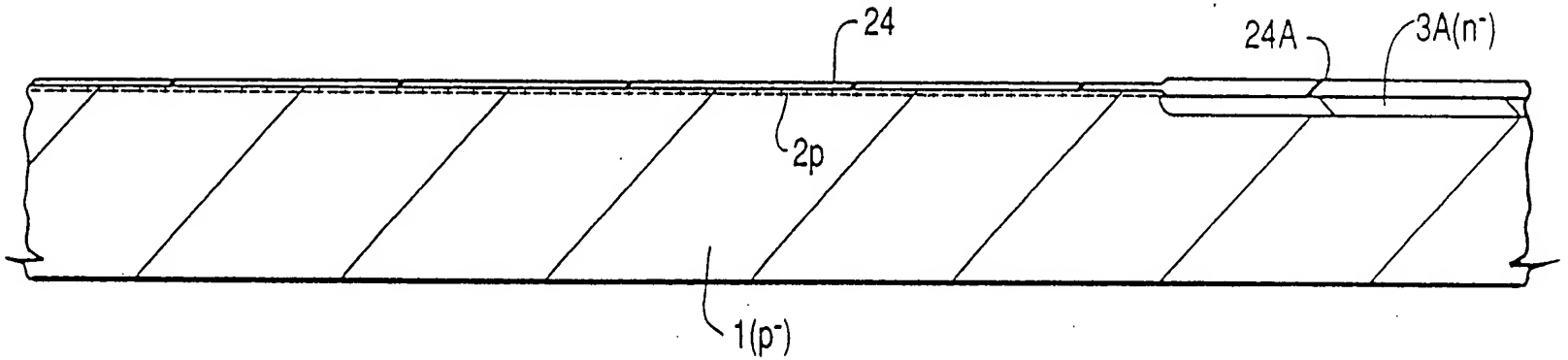


FIG. 12

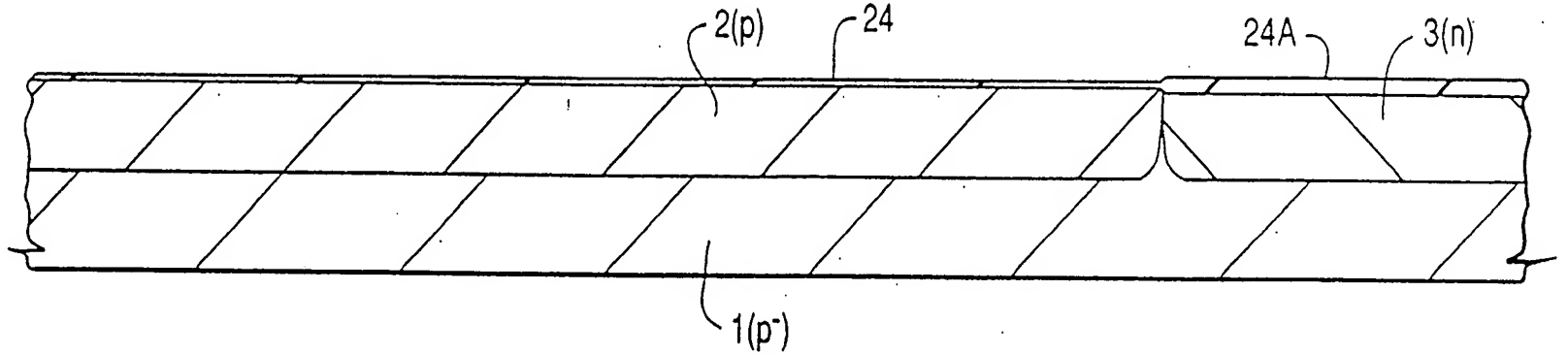


FIG. 13

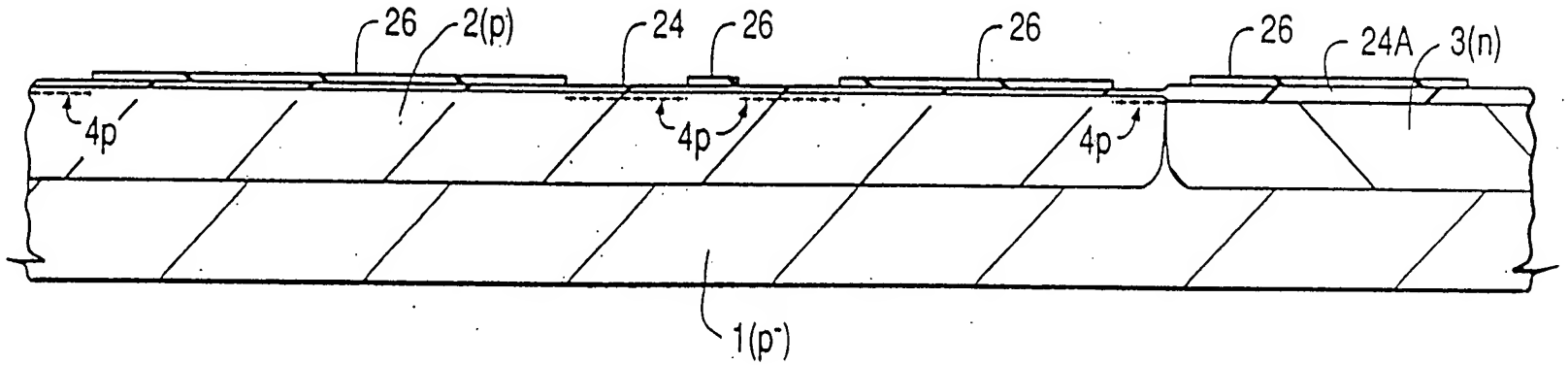

26
2(p)
24
26
26
26
24A
3(n)
4p
4p
4p
1(p-)

FIG. 14

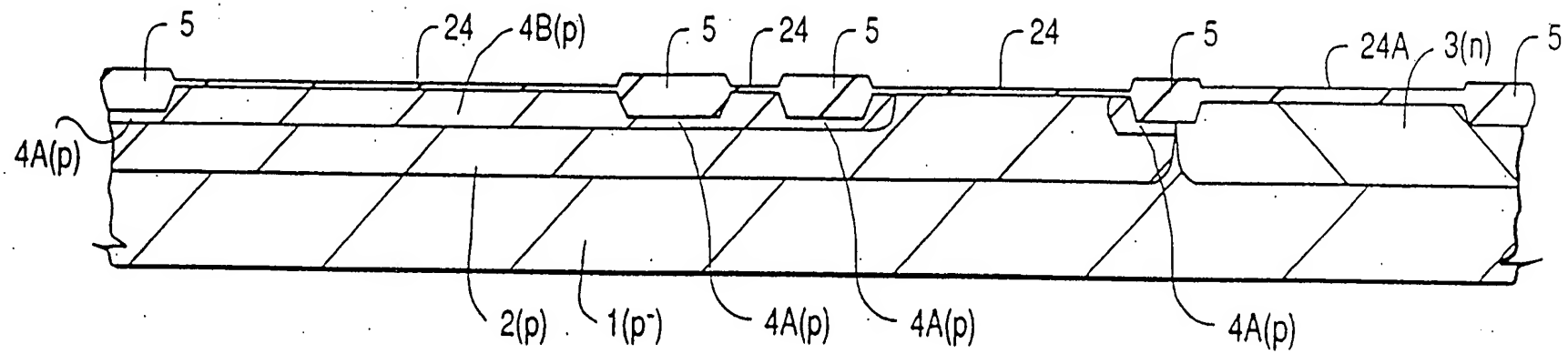

5
24
4B(p)
5
24
5
24
5
24A
3(n)
5
4A(p)
2(p)
1(p-)
4A(p)
4A(p)
4A(p)

FIG. 15

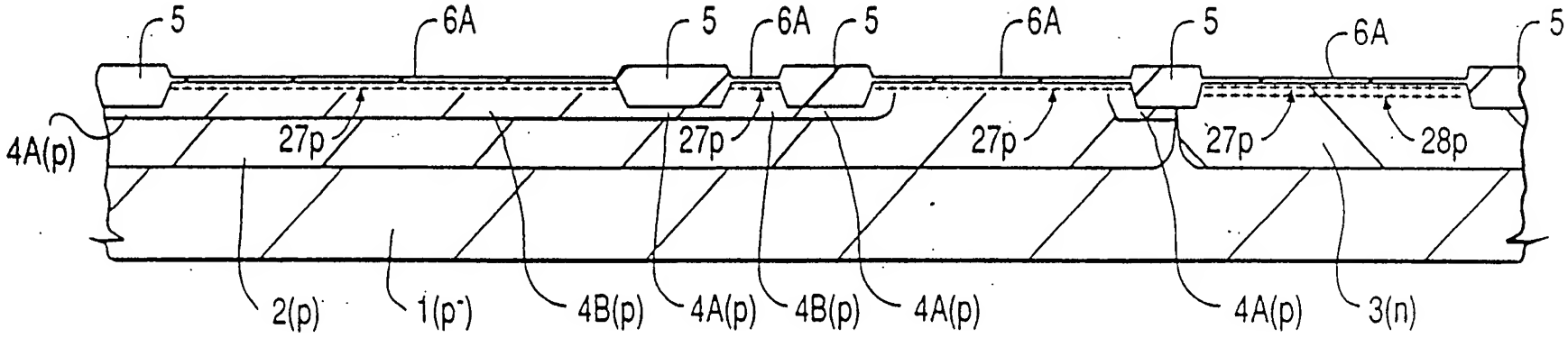

5
6A
5
6A
5
6A
5
6A
5
4A(p)
27p
27p
27p
27p
28p
2(p)
1(p⁻)
4B(p)
4A(p)
4B(p)
4A(p)
4A(p)
3(n)

FIG. 16

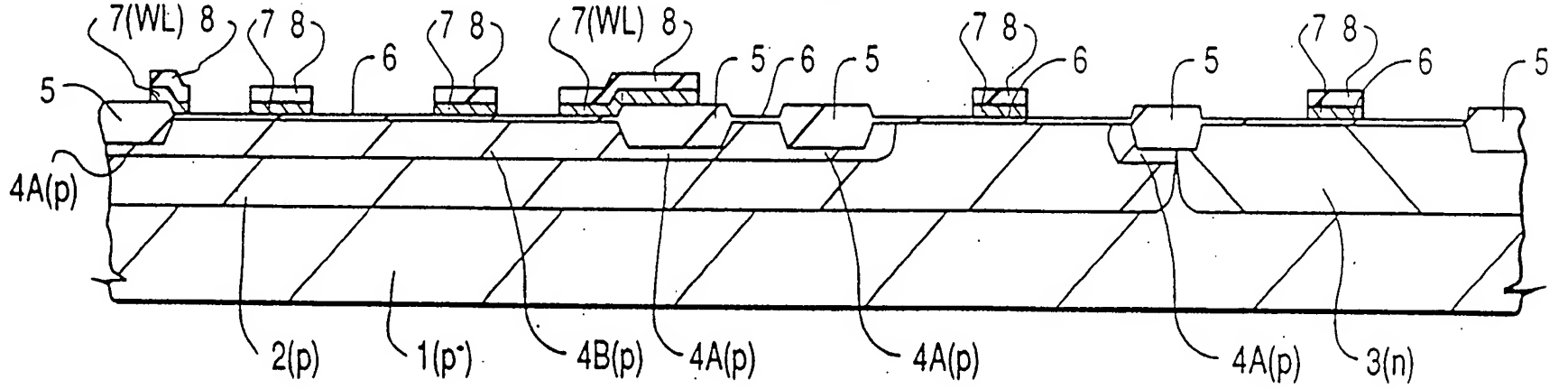

7(WL) 8
7 8
7 8
7(WL) 8
7 8
7 8
5
6
5
6
5
6
5
6
5
4A(p)
2(p)
1(p⁻)
4B(p)
4A(p)
4A(p)
4A(p)
3(n)

FIG. 17

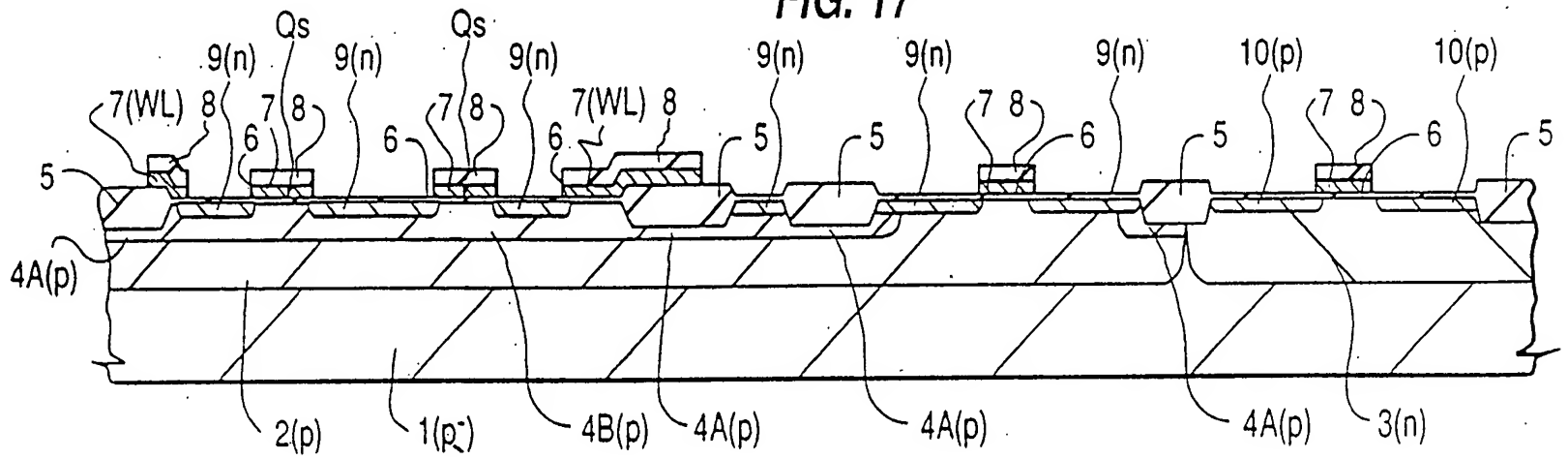

Qs
Qs
9(n)
9(n)
9(n)
9(n)
9(n)
9(n)
10(p)
10(p)
7(WL)
8
7
8
6
5
4A(p)
2(p)
1(p⁻)
4B(p)
4A(p)
4A(p)
4A(p)
3(n)

FIG. 18

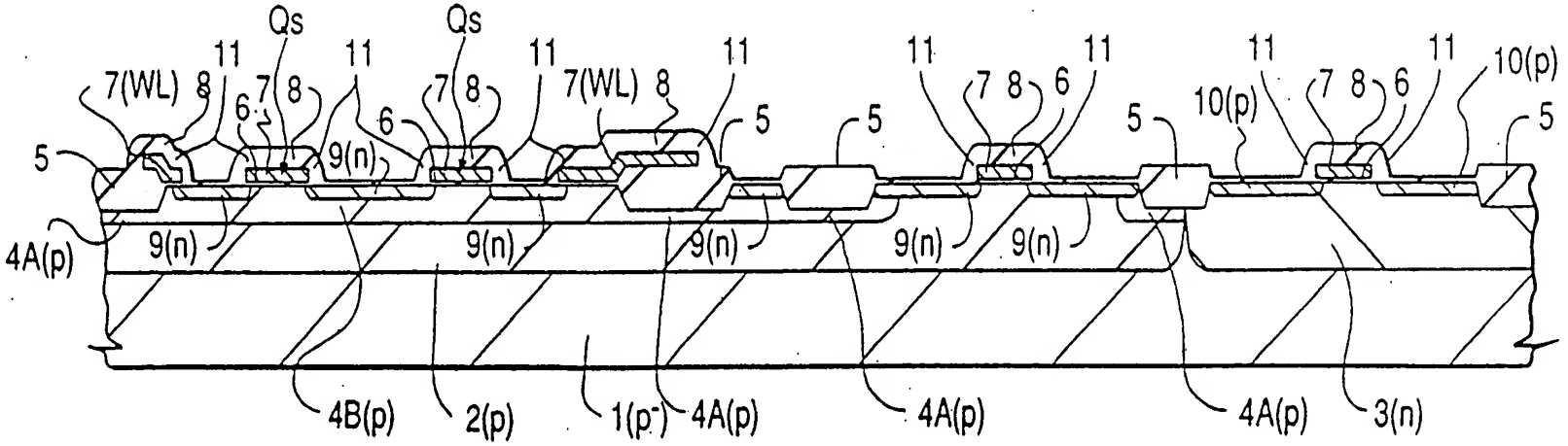

Qs
Qs
11
7(WL)
8
7
6
5
9(n)
10(p)
4A(p)
4B(p)
2(p)
1(p⁻)
4A(p)
4A(p)
4A(p)
3(n)

FIG. 19

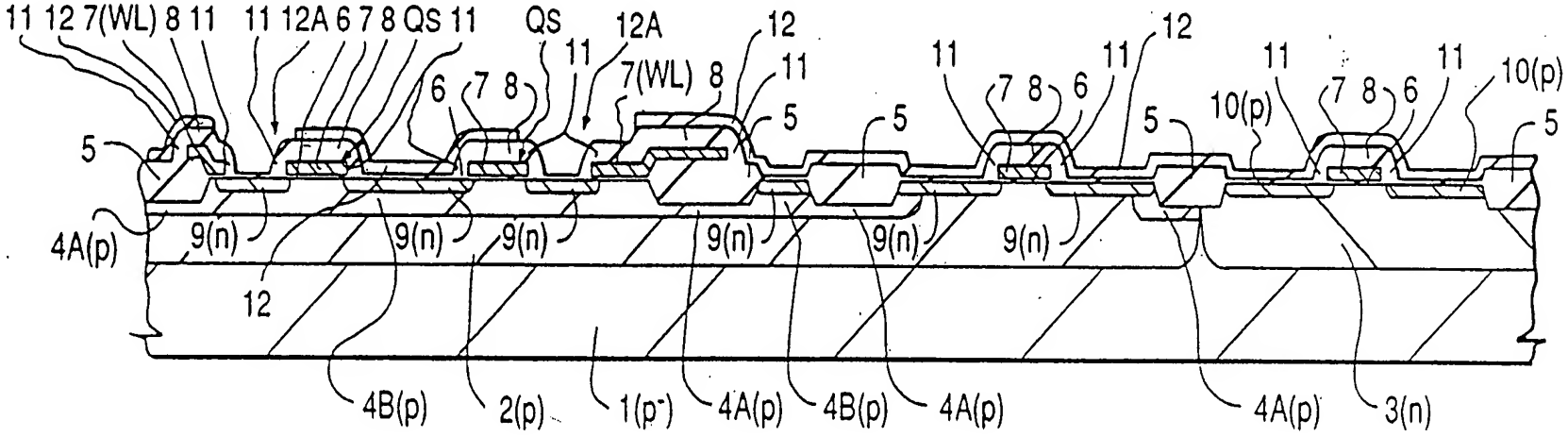

11 12 7(WL) 8 11
11 12A 6 7 8 QS 11
QS
11
12A
7(WL) 8
12
11
6
7 8
5
4A(p)
9(n)
12
4B(p)
2(p)
1(p-)
4A(p)
4B(p)
4A(p)
10(p)
3(n)

FIG. 20

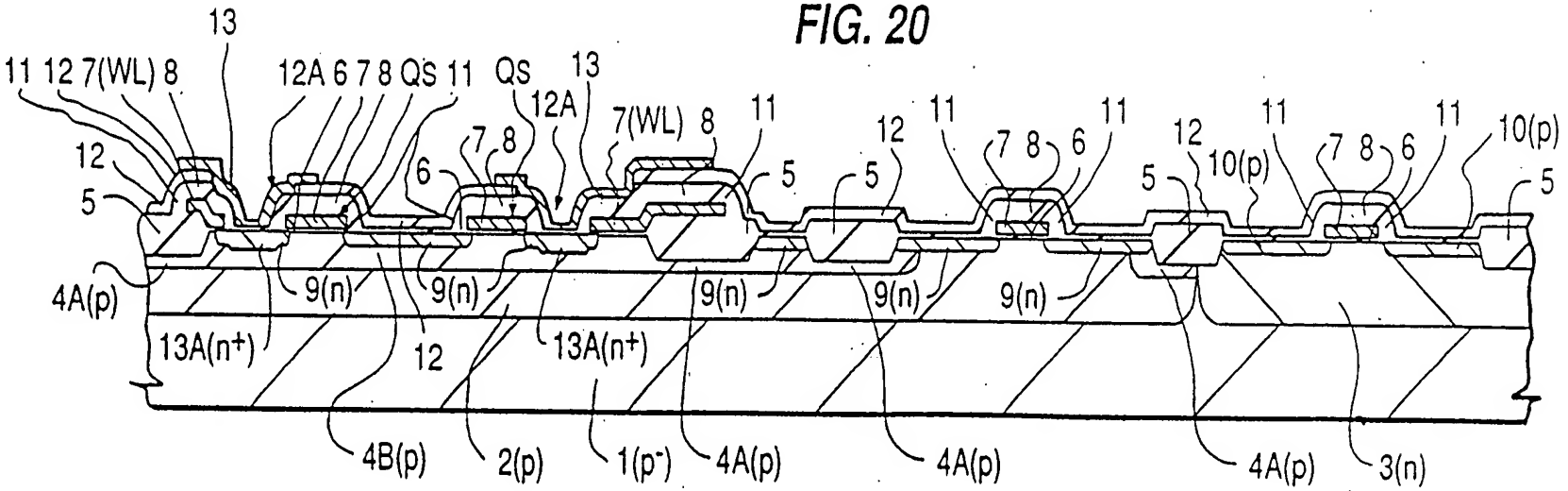

13
11 12 7(WL) 8
12A 6 7 8 QS 11
QS
13
12A
7(WL) 8
11
12
5
4A(p)
9(n)
13A(n+)
12
4B(p)
2(p)
1(p-)
4A(p)
4A(p)
10(p)
3(n)

FIG. 21

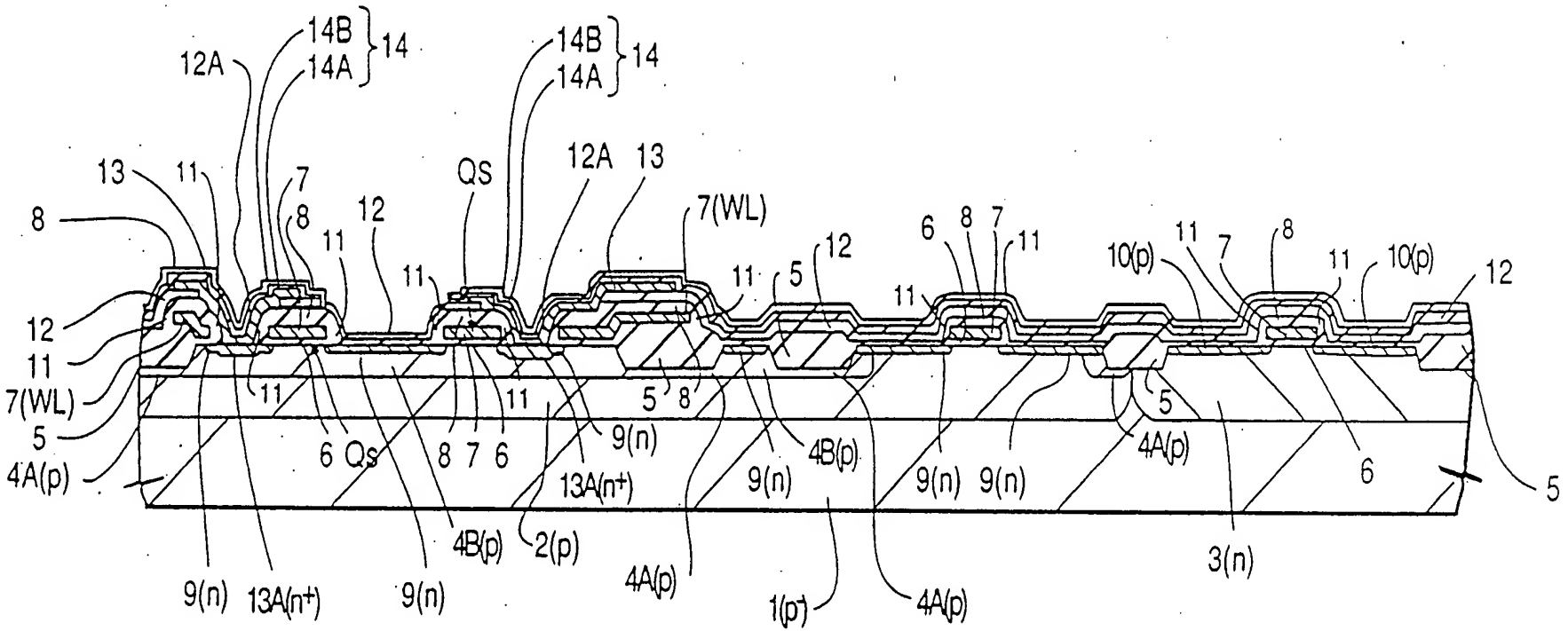

14B
14A
14
12A
13
11
7
8
12
QS
7(WL)
6
10(p)
5
4A(p)
6 Qs
8 7 6
9(n)
13A(n+)
4B(p)
2(p)
1(p+)
3(n)

FIG. 22

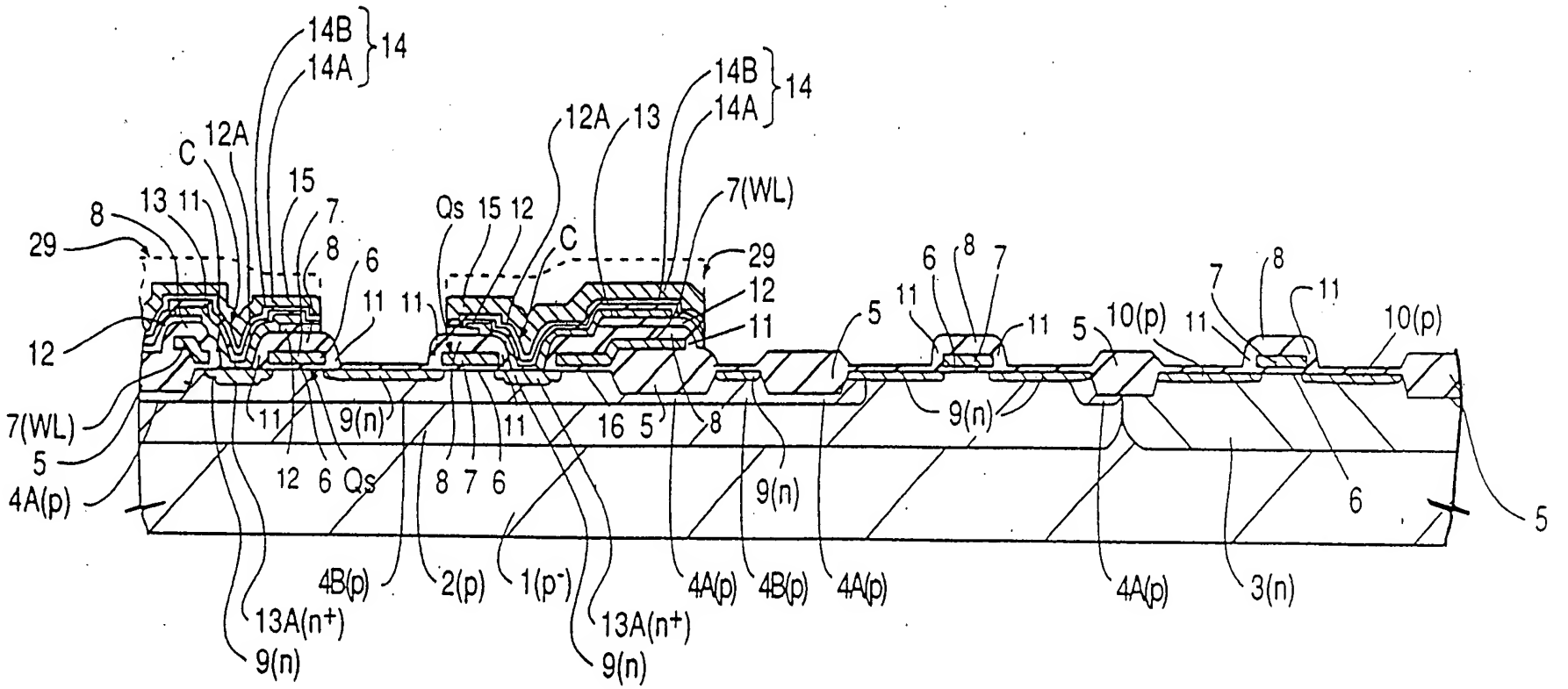

14B
14A
14
12A
C
15
7
8
13
11
29
6
11
12
7(WL)
5
4A(p)
9(n)
Qs
16
4B(p)
2(p)
1(p⁻)
13A(n⁺)
10(p)
3(n)

FIG. 23

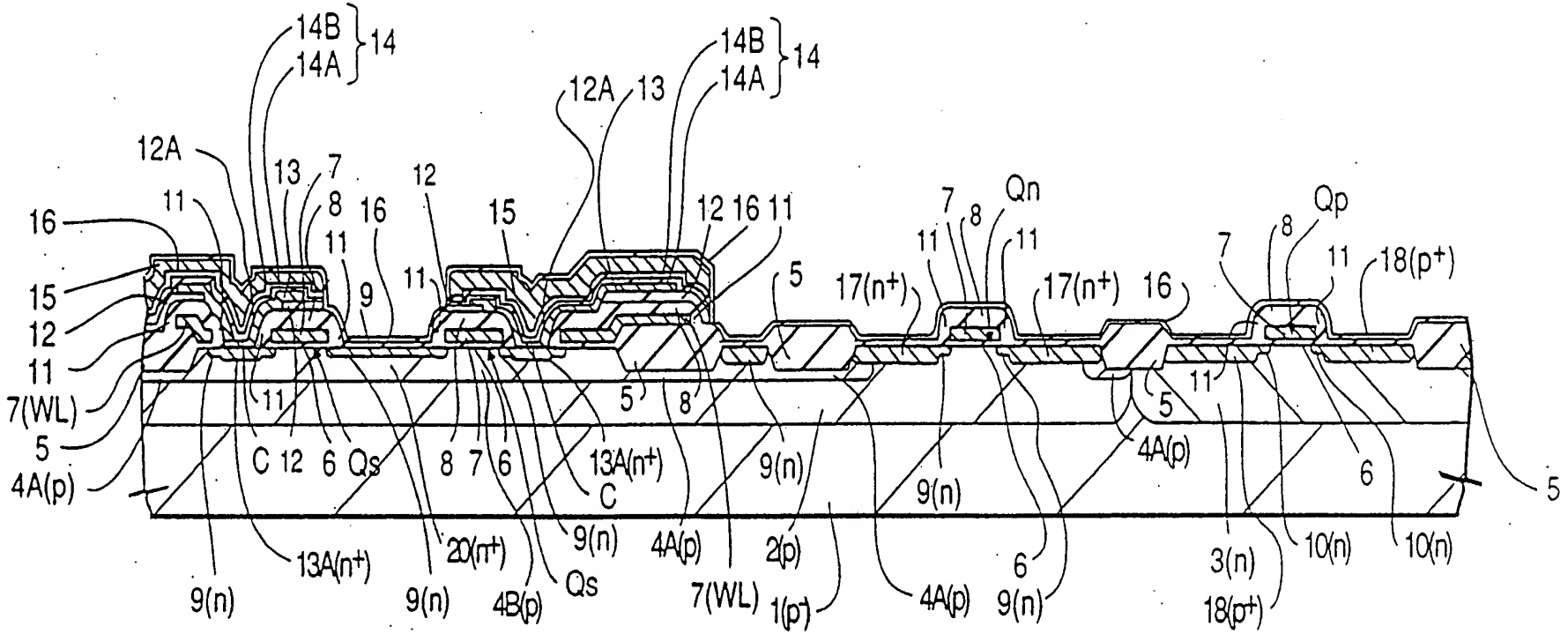

14B
14A
14
12A
13
7
8
16
11
12
15
9
5
17(n+)
Qn
Qp
18(p+)
C
Qs
6
4A(p)
13A(n+)
20(n+)
9(n)
4B(p)
2(p)
7(WL)
1(p-)
3(n)
10(n)

FIG. 24

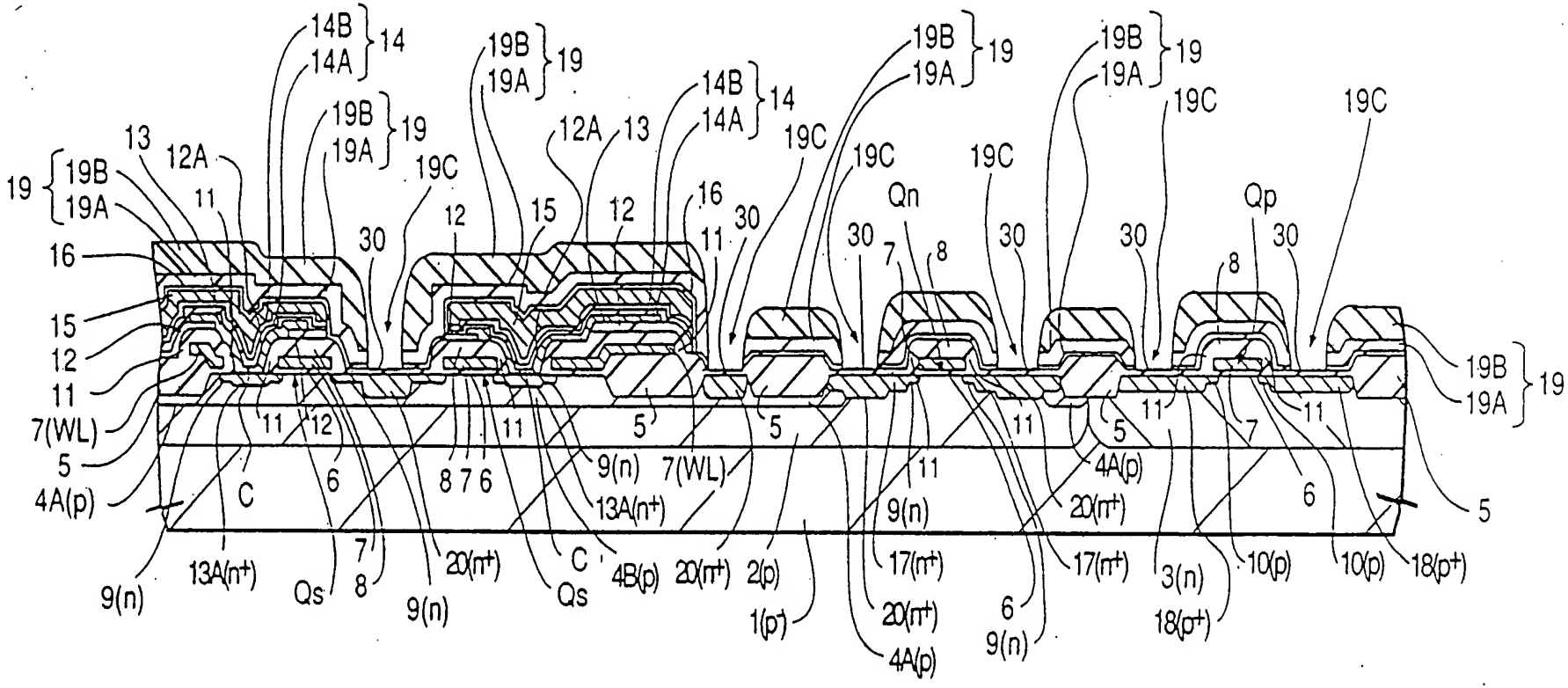

14B
14A
14
19B
19A
19
19C
13
12A
11
16
15
12
7(WL)
5
4A(p)
C
13A(n+)
9(n)
Qs
6
7
8
20(n+)
4B(p)
2(p)
1(p-)
30
Qn
Qp
17(n+)
3(n)
18(p+)
10(p)

FIG. 25

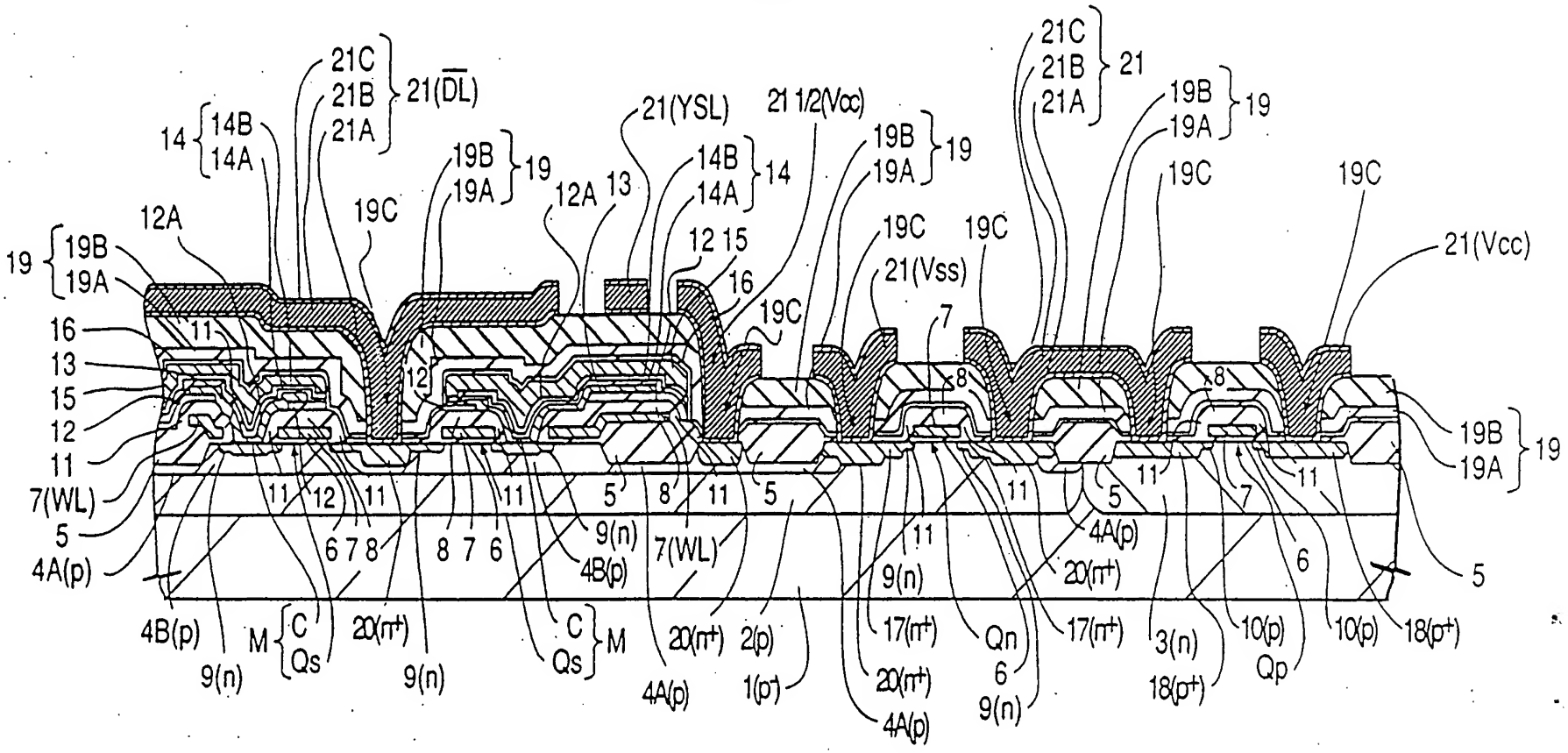

21C
21B
21A
21(DL)
14
14B
14A
19B
19A
19
12A
19C
13
21(YSL)
21 1/2(Vcc)
12 15
16
21(Vss)
7
8
21
21(Vcc)
11
12
5
9(n)
4B(p)
7(WL)
4A(p)
6 7 8
8 7 6
C
Qs
M
20(n+)
2(p)
1(p+)
17(n+)
Qn
6
3(n)
18(p+)
10(p)
Qp

FIG. 26

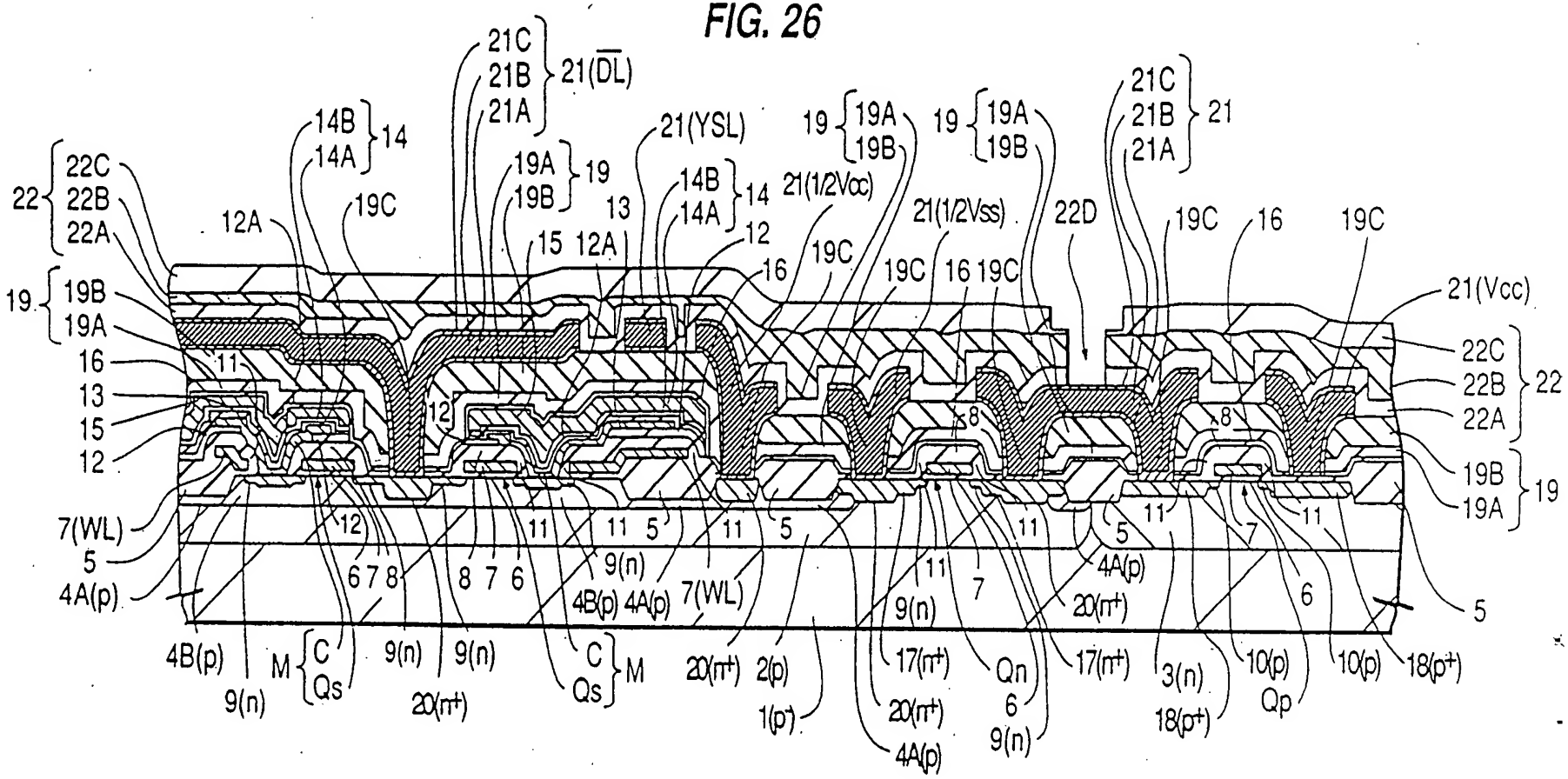

21C
21B
21A
21(DL)
14B
14A
14
19A
19B
19
21(YSL)
21(1/2Vcc)
21(1/2Vss)
22D
21
22C
22B
22A
22
19C
16
21(Vcc)
12A
13
15
12
11
8
7(WL)
5
4A(p)
6 7 8
9(n)
4B(p)
20(n+)
2(p)
1(p-)
17(n+)
Qn
6
3(n)
18(p+)
10(p)
Qp
M
C
Qs

FIG. 28

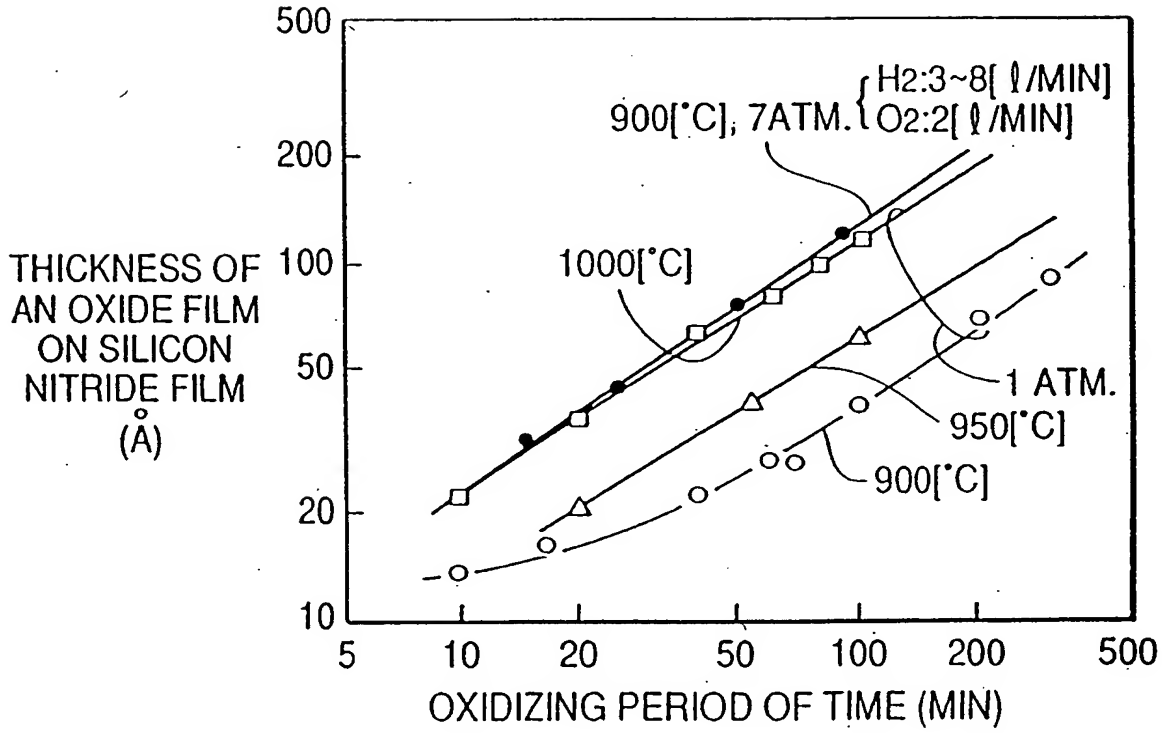
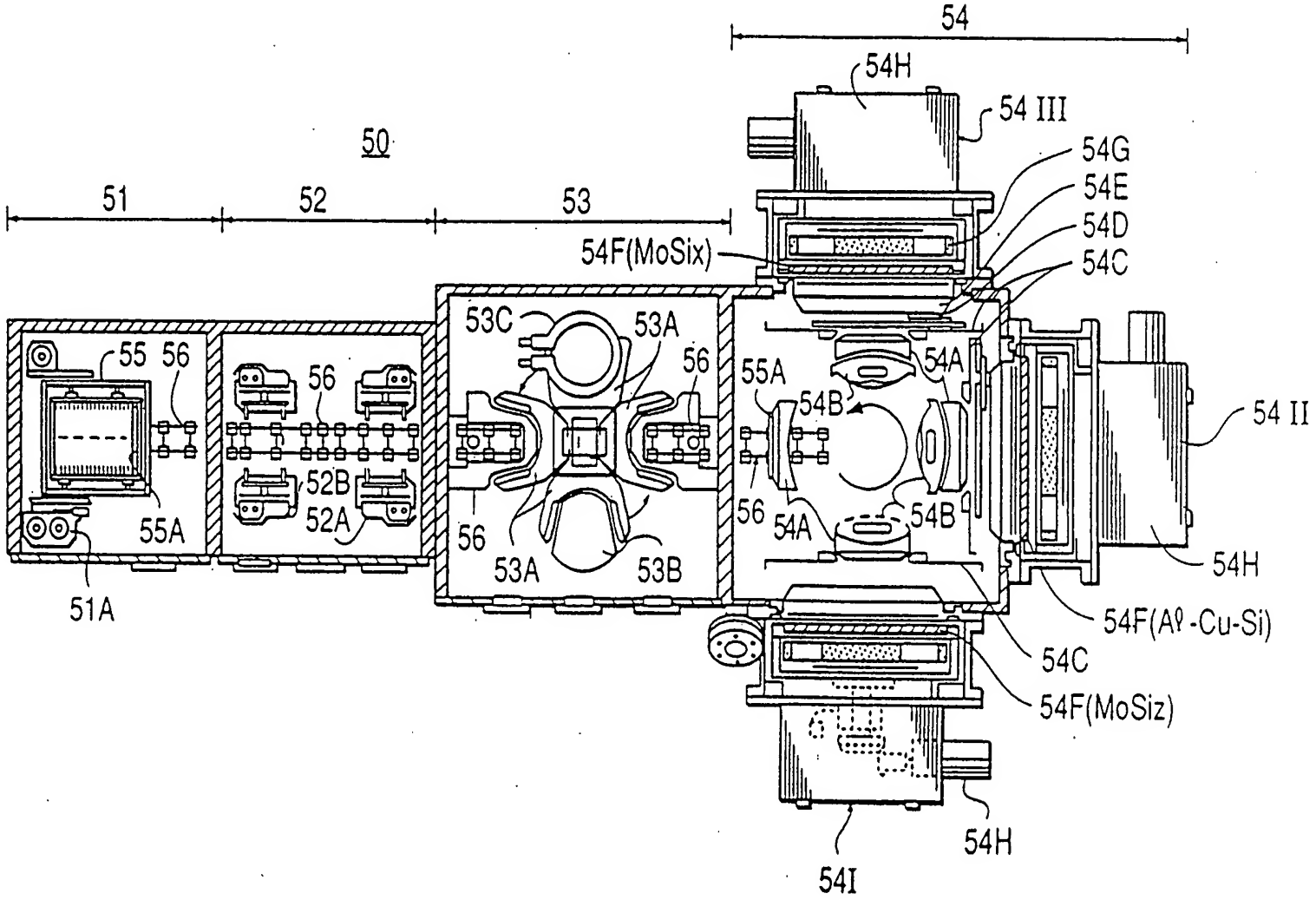

500
200
100
50
20
10
THICKNESS OF AN OXIDE FILM ON SILICON NITRIDE FILM (Å)
H2:3~8[ℓ/MIN]
900[°C], 7ATM.
O2:2[ℓ/MIN]
1000[°C]
1 ATM.
950[°C]
900[°C]
5
10
20
50
100
200
500
OXIDIZING PERIOD OF TIME (MIN)

FIG. 29


54
54H
54 III
50
54G
54E
54D
54C
51
52
53
54F(MoSix)
53C
53A
56
55
56
55A
54A
54B
54 II
56
52B
52A
56
53A
53B
56
54A
54B
54H
54F(Aℓ-Cu-Si)
51A
55A
54C
54F(MoSiz)
54H
54I